

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A device comprising a first support element (100), a second support element (110) which is separate from said first support element (100), a structure (10) placed in tension between said two support elements (100, 110) and a rupture device (20, 30, 40, 50) associated with this said structure in tension (10) so as to rupture the latter said structure in tension on demand, characterized in that it said device additionally comprises a beam (150) working in compression, inserted between these said two support elements (100, 110) in parallel with the structure to be ruptured (10).
2. (Currently Amended) The device as claimed in claim 1, in which the structure (10) intended to be ruptured comprises pretensioned fibers, characterized in that it said device comprises two stressing members (20, 30) arranged one on each side of the fibers (10), ~~and operating means (40) designed to, on demand, bring about a said stressing member being able of~~ relative displacement toward each other ~~of the stressing members (20, 30), the latter the stressed members being shaped so that, as they said stressing members move closer together, they impose on the fibers (10) a radius of curvature that is below thea threshold of curvature thereof that leads to rupture in bending, and operating means (40) designed to bring about the relative displacement of said stressing members (20, 30).~~
3. (Original) The device as claimed in claim 2, characterized in that the stressing members comprise a punch (30) and retaining means (20) arranged one on each side of the fibers (10).
4. (Currently Amended) The device as claimed in ~~either of claims 2-and 3,~~ characterized in that the operating means (40) are of pyrotechnic type.
5. (Currently Amended) The device as claimed in ~~one of claims 2-to 4,~~ characterized in that the operating means (40) comprise a pyrotechnic charge (50) capable of generating a high-pressure gas and an inflatable sealed member (60) connected to the pyrotechnic charge (50) and in contact with at least one of

the stressing members (20, 30) so as to bring about a relative displacement of these when said charge (50) is initiated.

6. (Currently Amended) The device as claimed in ~~one of claims 2 to 51~~, characterized in that the structure to be ruptured (10) is made at least in part of composite material.
7. (Currently Amended) The device as claimed in ~~one of claims 2 to 61~~, characterized in that the structure to be ruptured (10) consists of a strap.

Claim 8 (previously withdrawn).

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9. (Currently Amended) The device as claimed in ~~one of claims 2 to 8~~, characterized in that the ~~structure~~ element to be ruptured (10) is nonhomogeneous over its entire length, it consists essentially of fibers at the rupture zone placed facing the stressing members (30) and consists of a composite material, fibers embedded in a synthetic material, outside this rupture zone.
 10. (Currently Amended) The device as claimed in ~~one of claims 2 to 91~~, characterized in that the fibers that make up the structure to be ruptured (10) have a longitudinal elastic modulus in excess of 20 000 MPa.
 11. (Currently Amended) The device as claimed in ~~one of claims 2 to 101~~, characterized in that the fibers that make up the structure to be ruptured (10) have a diameter of the order of 0.1 to 25 µm, or even of 0.1 to 10 µm.
 12. (Currently Amended) The device as claimed in ~~one of claims 2 to 11~~, characterized in that one of the stressing members comprises a punch (30) made of high-carbon steel.
 13. (Currently Amended) The device as claimed in ~~one of claims 2 to 12~~, characterized in that one of the stressing members comprises a punch (30) which defines a dihedron, the angle of which is between 30 and 90°, preferably of the order of 60°.

14. (Currently Amended) The device as claimed in ~~one of claims 3 and 12 to 13~~, characterized in that the punch (30) has an edge (33), the maximum radius of curvature r of which is defined by the relationship
- $$r = [(d/2)E]/\sigma$$
- in which
- . σ represents the maximum local extensile or compressive stress,
 - . E represents the longitudinal elastic modulus, and
 - . d represents the diameter or thickness of the beam consisting of a fiber (10).
15. (Currently Amended) The device as claimed in ~~one of claims 3 and 12 to 14~~, characterized in that the punch (30) has an edge (33), the radius of curvature r of which is at maximum of the order of 1 mm, preferably at maximum of the order of 0.75 mm.
16. (Currently Amended) The device as claimed in ~~one of claims 2 to 15~~, characterized in that the length and the structure of the inflatable ~~tube~~sealed member (60) are designed to mechanically decouple the pyrotechnic ~~generator charge~~ (50) and the punch (30) so as to avoid any transmission of vibration from the pyrotechnic ~~generator charge~~ (50) to the punch (30).
17. (Currently Amended) The device as claimed in ~~one of claims 2 to 16~~, characterized in that the operating means (40) comprise a pyrotechnic generator (50) which has an electric initiator (56).
18. (Currently Amended) The device as claimed in ~~one of claims 2 to 14~~, characterized in that the operating means (40) comprises a pyrotechnic generator (50) which has a charge (54) capable of generating a gas by combustion.
19. (Original) The device as claimed in claim 5, characterized in that the inflatable sealed member (60) is formed of a stainless steel tube.
20. (Currently Amended) The device as claimed in ~~either of claims 5 and 19~~, characterized in that the inflatable sealed member (60) has a diameter of the order of 4 mm.

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JUL 6 2000
pg. 10
21. (Currently Amended) The device as claimed in ~~one of claims 2 to 20~~, characterized in that the stressing means comprise a punch and retaining means (20) formed of an anvil and located one on each side of the structure to be ruptured (10).
 22. (Original) The device as claimed in claim 21, characterized in that the anvil (20) is made of a material not as hard as the punch (30).
high carbon steel
 23. (Currently Amended) The device as claimed in ~~either of claims 21 and 22~~, characterized in that the anvil (20) is made of medium-carbon steel.

Claims 24-30 (previously withdrawn).

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31. (Currently Amended) The device as claimed in ~~one of claims 2 to 30~~, characterized in that ~~the~~ a pyrotechnic generator (50) is designed to emit at least 1.5 l of gas at one atmosphere.
 32. (Currently Amended) The device as claimed in ~~one of claims 1 to 31~~, characterized in that the element beam (150) working in compression is built in at one end into an element of complementary structure (100).
 33. (Currently Amended) The device as claimed in ~~one of claims 1 to 32~~, characterized in that it has an annular structure.
 34. (Original) The device as claimed in claim 33, characterized in that the structure to be ruptured (10) is formed of a continuous annulus.
 35. (Original) The device as claimed in claim 33, characterized in that the structure to be ruptured (10) is formed of several elements distributed about the axis O-O of the structure.
 36. (Currently Amended) The device as claimed in ~~one of claims 1 to 35~~, characterized in that the element beam (150) working in compression is formed integrally with one of the two support elements (100, 110).

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37. (Currently Amended) The device as claimed in ~~one of claims 1 to 36 taken in combination with claim 3~~, characterized in that the element beam (150) working in compression also serves as retaining means (20).
 38. (Currently Amended) The device as claimed in ~~one of claims 1 to 36 taken in combination with claim 3~~, characterized in that the element beam (150) working in compression also serves as a guide for the punch (30) and, as appropriate, for an inflatable tube (60) belonging to the operating means.

Claims 39-49 (previously withdrawn).
